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Citation for published version (APA):

Nadolski, R., Kirschner, P. A., & Van Merriënboer, J. (2005). Optimizing the number of steps in learning tasks for complex skills. *British Journal of Educational Psychology*, 75(2), 223-237.
<https://doi.org/10.1348/000709904X22403>

DOI:

[10.1348/000709904X22403](https://doi.org/10.1348/000709904X22403)

Document status and date:

Published: 01/06/2005

Document Version:

Peer reviewed version

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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- The final published version features the final layout of the paper including the volume, issue and page numbers.

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Background. Carrying out whole tasks is often too difficult for novice learners attempting to acquire complex skills. The common solution is to split up the tasks into a number of smaller steps. The number of steps must be optimised for efficient and effective learning.

Aim. The aim of the study is to investigate the relation between the number of steps provided to learners and the quality of their learning of complex skills. It is hypothesized that students receiving an optimised number of steps will learn better than those receiving either the whole task in only *one* step or those receiving a large number of steps.

Sample. Thirty-five sophomore law students studying at Dutch universities, mean age = 22.8 years ($SD = 3.5$), with 63 per cent females.

Method. Participants were randomly assigned to one of three computer-delivered versions of a multimedia program on how to prepare and carry out a law plea. The versions differed only in the number of learning steps provided. Videotaped plea-performance results were determined, various related learning measures were acquired and all computer-actions were logged and analysed.

Results. Participants exposed to an intermediate (i.e., optimised) number of steps outperformed all others on the compulsory learning task. No differences in performance on a transfer task were found. A high number of steps proved to be less efficient for carrying out the learning task.

Conclusions. An intermediate number of steps is the most effective, proving that the number of steps can be optimised for improving learning.

British Journal of Educational Psychology, 75, 223-237

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